## I. BACKGROUND

The Massachusetts Department of Environmental Protection (Department), Division of Business Compliance, is proposing several amendments to the air pollution control regulations in Massachusetts. This document presents the background and technical support information for the proposed amendments. The amendments affect nine air pollution control regulations that cover plan approval of new and modified stationary sources, emission reporting, emission monitoring, fuel oil specifications, and emission control requirements. The nine regulations affected by these proposed amendments include:

| | |
|---|---|
| 310 CMR 7.00 | Definitions |
| 310 CMR 7.02 | Plan Approval and Emission Limitations |
| 310 CMR 7.03 | Plan Approval Exemption: Construction Requirements |
| 310 CMR 7.04 | Fossil Fuel Utilization Facilities |
| 310 CMR 7.05 | Fuels: All Districts |
| 310 CMR 7.06 | Visible Emissions |
| 310 CMR 7.12 | Source Registration |
| 310 CMR 7.18 | Volatile and Halogenated Organic Compounds |
| 310 CMR 7.19 | RACT for Sources of Oxides of Nitrogen |

These regulations are being amended as part of a statewide initiative to simplify regulations of the Commonwealth, with the goal of making regulations more readable and understandable to the general public. The Department's effort sought to eliminate obsolete regulations and standards, rewrite some sections to simplify the language, reduce complexity, and eliminate redundant sections.

Also, these amendments are the culmination of a collaborative outreach initiative. Beginning in 1995, the initiative sought to critically evaluate the Air Pollution Control Regulations to come to some consensus on common-sense changes that should be made to the regulations. The Department, the Associated Industries of Massachusetts (AIM) and an Ad Hoc Industry Workgroup collaborated during this initiative.

The process of evaluating the regulations for efficiency improvements began after an April 1995 meeting hosted by the Department. This retreat was held to engage the AIM in a productive

dialog on environmental plan approval. After the retreat, the Ad Hoc Industry Group, comprised of a small group of AIM members, began meeting with Department representatives on a once-per-three-week schedule through 1996, and into 1997. These meetings were essential to building consensus on issues such as the timeliness of plan approval issuance, the clarity of regulations with regard to plan approval applicability, and redundancy or confusion in the regulations with regard to emission controls, or standards. The Ad Hoc Industry Group periodically reported back to the AIM membership on the progress of the discussions with the Department. The Ad Hoc Industry Group also queried the AIM membership for ideas on simplifying the regulations. The combined Department/Ad Hoc Industry group also formally reported any consensus agreements to AIM President, John Gould and former Department Commissioner, David Struhs.

Members of the Ad Hoc Industry Group included the following:

| Company | Representative |
|---|---|
| Polaroid Corporation | William T. Perry |
| General Electric Corp. | John LeFabvre |
| Gillette Corp. | Margie Aleo |
| Monsanto Corp. | Norman Philibert |

Joining this group from the Department were representatives from each regional office and the Boston Office.

After the recommended changes were conceptualized, the Department contracted with a private consultant to prepare the amendments to the regulations. The consultant worked with the Department's Boston and Regional staff to translate the recommended changes into proposed regulatory amendments. In the process, Department staff identified several additional changes that will further the regulatory enhancement and simplification goals of this project. The consultant was also asked to re-draft certain parts of the regulations (most notably 7.02) to improve the readability and clarity.

In early June 1998, the Department met with environmental groups to give an overview of the project. Subsequently, in late June 1998 the Department held a Rule Review session with various knowledgeable interested parties to explain the changes and seek informal comment.

The products of this effort have been compiled into this proposal that is now being presented for public hearing prior to the adoption of final regulations.

## II. CHARACTERIZATION OF AIR POLLUTION PROBLEMS IN MASSACHUSETTS

The Massachusetts Air Pollution Control Regulations are designed to ensure that no person who owns, leases or controls a source of air contaminants shall allow emissions from that source to cause or contribute to a condition of air pollution. The regulations are adopted under the authority of Massachusetts General Law Chapter 111, Section 142. The air pollution control regulations provide procedures for permitting new and modified sources of air contaminants. The regulations also contain emission standards applicable to new and existing sources of air contaminants and procedures for record keeping, reporting, testing and monitoring.

Massachusetts is in attainment, and must maintain attainment, of the health-based ambient air quality standards for sulfur dioxide ($SO_2$), nitrogen dioxide ($NO_2$), particulate matter, lead, and carbon monoxide (CO). Massachusetts does not attain the health based air quality standard for ground-level ozone.

Ground-level ozone is not directly emitted, but is formed when oxides of nitrogen (NOx) reacts with volatile organic compounds (VOC) in the presence of sunlight and heat. Elevated ozone, therefore, occurs most frequently during the hot summer months. Ozone is a photochemical oxidant which can cause lung dysfunction, eye irritation and can exacerbate respiratory illness. Ground level ozone may disproportionately affect sensitive populations, including children and the elderly. Ozone can also damage forest vegetation and agricultural crops, as well as natural and synthetic materials.

VOCs are emitted from industrial processes such as painting, printing and coating; from mobile sources; and consumer activities such as boating, house painting, consumer product use and lawn care.

NOx is produced whenever fuels are burned, including: combustion of gasoline and diesel fuel in motor vehicles; combustion of natural gas, oil and coal in power plants; and combustion of oil, and gas in industrial, commercial, residential and institutional boilers.

The proposed amendments will affect sources that emit any criteria pollutants as well as any hazardous air pollutants, as defined by Section 112 of the Federal Clean Air Act Amendments of 1990 (the Act). Many of the Department's regulations of air emissions from stationary sources are directed towards reducing emissions of VOC or NOx as part of a plan to attain the ozone air quality standard, and to limit emissions of $SO_2$, $NO_2$, CO, lead and particulate to maintain attainment with these standards. In particular, the Massachusetts plan approval regulations,

including 310 CMR 7.02 and 310 CMR 7.03, are part of the ongoing effort to attain and maintain the health-based air quality standards. These regulations ensure that each applicable new or modified emission unit implements a level of emission control that is considered to be state-of-the-art or "Best Available Control Technology" (BACT).

## III. SUMMARY OF PROPOSED CHANGES

These proposed amendments affect nine sections of the Air Pollution Control Regulations including the following:

| | |
|---|---|
| **310 CMR 7.00** | **Definitions** |
| **310 CMR 7.02** | **Plan Approval and Emission Limitations** |
| **310 CMR 7.03** | **Plan Approval Exemption Construction Requirements** |
| **310 CMR 7.04** | **Fossil Fuel Utilization Facilities** |
| **310 CMR 7.05** | **Fuels: All Districts** |
| **310 CMR 7.06** | **Visible Emissions** |
| **310 CMR 7.12** | **Source Registration** |
| **310 CMR 7.18** | **Volatile and Halogenated Organic Compounds** |
| **310 CMR 7.19** | **RACT for Sources of Oxides of Nitrogen** |

In the following pages, the amendments proposed for each regulation are summarized.

### *A. 310 CMR 7.00 Definitions*

The proposed amendments to the definitions can be segregated into three categories: addition of new definitions, amendment to existing definitions and elimination of definitions.

It is proposed to **add** 16 new definitions to the regulations. Most of the added definitions are identical to definitions of terms contained in 310 CMR 7.00, Appendix A and Appendix C. The addition of these definitions to 310 CMR 7.00 should facilitate the use of these terms in the main body of the Air Pollution Control Regulations. The proposed new definitions include:

| | |
|---|---|
| Actual Emissions | Hazardous Air Pollutant |
| Alter or Alteration | Lowest Achievable Emission Rate |
| Capture Efficiency | Maximum Achievable Control Technology |
| Compliance Certification | Maximum Design Capacity |
| Construct or Construction | MW |
| Emission Statement | Natural Draft Opening |
| Ferrous Cupola Foundry | Non-Attainment Review |

| | |
|---|---|
| Fugitive Emissions | Non-criteria Pollutant |

It is also proposed to **amend** several definitions. The proposed amendments make these existing definitions consistent with the new citations, language and terms of the proposed regulations. Proposed amended definitions include:

| | |
|---|---|
| Emergency or Standby Engine | Federally Enforceable |
| Existing Facility | Potential to Emit |

Finally, it is proposed to **delete** one of the current definitions which defines a term no longer used in the regulations. The term, "Complex," is a remnant from an earlier version of 310 CMR 7.12, related to the compliance fees assessed by the Department based on a facility's size and complexity. The compliance fee provisions of 310 CMR 7.12 have since been replaced by 310 CMR 4.00, *Timely Action Schedule of Fee Records*, and the reference to "complex" facilities has been deleted from 310 CMR 7.12. It is therefore appropriate to delete this obsolete definition.

*B. 310 CMR 7.02 Plan Approval and Emission Limitations*

This regulation, initially adopted in 1970, is the backbone of the Air Pollution Control Plan Approval Program. The regulation describes standards that have to be met and the procedures that must be followed to obtain a plan approval to construct, reconstruct or modify equipment that may emit air contaminants to the ambient air.

A major revision of 310 CMR 7.02 was undertaken in the late 1980's with the adoption of a tiered approach to plan approval. This tiered approach:

- identified certain activities as being exempt from plan approval;
- created the "Limited Plan Approval" for installation of combustion units of certain sizes, or changes that would contribute no more than 5 tons per year of emissions to the air; and
- established the "Comprehensive Plan Approval" for larger sized projects.

In 1994, the Department modified 310 CMR 7.02 again to include a procedure and plan approval process that allows existing facilities agree to a cap or enforceable restriction on emissions. This procedure and the plan approval are called the "Restricted Emission Status" approval or RES. The RES establishes a federally enforceable emission cap that facilities can use to avoid the requirements for an air operating permit, or "Reasonably Available Control Technology" (RACT) emission control requirements. A further amendment to 310 CMR 7.02, in 1996, provided for an emission cap through a notification procedure. This option is available for facilities that have

actual emissions less than 50% or less than 25% of the major source threshold. (Major sources are defined as having potential emissions of 100 tons per year of
any criteria attainment pollutant, 50 tons per year of any criteria non attainment pollutant, 10 tons per year of any single hazardous air pollutant or 25 tons per year of any combination of hazardous air pollutants.)

The amendments to 310 CMR 7.02 proposed here include:

- 20 new equipment-specific exemptions from plan approval.
- New procedures for modifying equipment that has already received plan approval.
- New provisions that allow an applicant to begin limited construction activity before the final plan approval is issued.
- A new procedure for modifying an existing RES approval based on a notification process.
- Language to implement section 112(g) of the Act with respect to construction or modification of sources of Hazardous Air Pollutants (HAPs) that require the installation of Maximum Achievable Control Technology (MACT) See 310 CMR 7.02(2), (4), & (5).
- Deletion of the process weight table, requirements for gaseous emissions from contact sulfuric acid plants, and industrial process emissions of nitrogen dioxide.

In addition to the above-listed changes, the regulation has been completely reorganized and redrafted to improve its readability and clarity. One example of an organizational change is the addition of a title to each paragraph, making specific requirements easier to locate when scanning the regulations. Only the most recent sections of the regulation, *Section (12) Restricted Emission Status*, *Section (14) Emergency or Stand-by Engines*, and *Section (15) 50% or 25% Facility Emission Cap Notification*, remain in their current format (although relocated), without change.

The following provides a section-by-section description of the proposed revisions to 310 CMR 7.02. The sections identified here reflect the new structure of the proposed regulation.

**(1) Purpose and Applicability**

This section contains an overall statement of applicability and some key dates to clarify when the plan approval requirements were adopted. This section also includes an "index" to plan approval types and plan approval applicability to enable the regulated community to better locate the plan approval section that may be applicable in specific situations.

**(2) Exemptions**

This section lists the activities that are exempt from plan approval. There are currently 12 activities listed in 310 CMR 7.02 that are exempt from plan approval. The Department is proposing that the following activities be added to the exemption list:

Fuel Switching where a fuel utilization facility with a maximum heat input capacity of less than or equal to 100,000,000 Btu per hour is converted from oil or solid fuel to either natural gas, or to oil/natural gas dual-fuel capability.

Burner Replacement where a fuel utilization facility burner is replaced with a new burner for the same fuel and where the new burner(s) is of equal or lower capacity than the replaced burner. This exemption is limited to fuel utilization facilities with a maximum heat input of less than or equal to 100,000,000 Btu per hour. This exemption is also limited to burner replacements where the new burner is at least 50%, but not more than 100%, of the original burner fuel input rate.

Burner Tip Replacement where a fuel utilization facility burner tip is repaired or replaced.

Fuel Atomization Equipment where this equipment is replaced or repaired. Replacement of steam or air atomization with mechanical atomization is not eligible for this exemption.

Air Pollution Control Equipment where an air pollution control device (excluding oxidizers or afterburners-*see next item*) is added to any facility currently in compliance with the provisions of 310 CMR 7.02, provided that the air pollution control equipment is not required by regulation or permit (i.e. voluntary pollution control). To be eligible for plan approval exemption, the air pollution control equipment cannot increase the potential emissions of any single criteria pollutant or single non-criteria pollutant by one ton or more per year, and cannot replace an existing air pollution control device required by plan approval or regulation.

Thermal and Catalytic Oxidizers where it is proposed to install a process emission oxidizer or afterburner with a rated capacity of less than 40,000,000 Btu per hour using natural gas. The oxidizer exempt from plan approval can be installed on a previously approved facility, or on a new facility which otherwise meets the plan approval exemptions provided for in 310 CMR 7.02(2). This exemption is only available where the air pollution control equipment is not required by regulation, and the air pollution control equipment does not replace an existing air

pollution control device required by plan approval or regulation. Flares are not eligible for this exemption.

Air Pollution Control Equipment for Control of Particulate including replacement of an existing air pollution control device for particulate matter (i.e., baghouse), even if required by a previous plan approval. In order to be exempt from plan approval, the replacement device must be of the same design as the existing control device, and must be the same size or larger than the original control device. The replacement control device must also be designed to achieve the same or better collection efficiency as the original control device.

Mixing and Blending Equipment including equipment used exclusively to mix or blend materials at ambient temperatures in making water-based solutions containing no more than 5% VOC by weight.

Plastic injection or compression molding machines. Extrusion molding and blow molding are not eligible for this exemption.

Water treatment systems for process cooling water or boiler feed water.

Wastewater treatment facilities, including pumping stations, with an average daily input flow of less than 50,000 gallons per day. Facilities eligible for this exemption must treat sanitary sewage exclusively.

Fuel storage tanks with a capacity less than or equal to 40,000 gallons and used exclusively to store product with a vapor pressure of less than 1.5 psi at the average annual ambient temperature.

Fuel loading or transfer racks that transfer 172,000 gallons per year or less of organic liquids, or organic liquid transfer racks that transfer exclusively organic liquids with a vapor pressure of less than 1.5 psi at the average ambient annual temperature. Transfer racks eligible for this exemption must still comply with the requirements of 310 CMR 7.24.

Emergency release containment. Areas constructed for the containment of unplanned releases.

Safety pressure relief devices associated with emission units having plan approvals.

Fire protection, fire fighting and/or fire suppression systems, except for those fire suppression systems and activities associated with the intentional combustion of materials for the purpose of fire suppression system evaluation or fire science research.

Insignificant Activities defined as those activities listed in 310 CMR 7.00, Appendix C (5)(i), as well as office equipment, static electricity reduction devices, electric arcs, and motors that generate ozone.

Plumbing soil stacks or vents.

Battery charging facilities used to charge lead acid batteries.

Motor vehicle maintenance and repair facilities excluding automobile refinishing facilities.

Another proposed exemption would exempt some changes in a facility's operation that may be inconsistent with an existing plan approval. Activities eligible for this proposed exemption cannot increase potential emissions by one ton or more per year above the emission limitation established by the existing plan approval. Activities eligible for this exemption must also only impact the allowable or actual emissions, allowable or actual operating rates and allowable actual production rates. Any activity that would contravene an existing plan approval by changing design, capture or control efficiency of an air pollution control device or that would violate the approved limit on VOC or HOC content of coatings, cannot be implemented without plan approval. Activities exempt from plan approval through this provision would be required to modify an RES, if one is held for the facility.

The proposed regulations also revise one existing exemption. The current version of 310 CMR 7.02 exempts from plan approval any change that results in a potential emission increase of less than a one ton per year for the sum of all non-criteria pollutants. It is proposed to change this plan approval threshold to less than one ton per year of any single non-criteria pollutant.

The proposed regulations also clarify one current exemption for fuel utilization facilities (boilers or furnaces) by indicating that the threshold of applicability for the exemption is applied to each fuel utilization device individually rather than in aggregate.

It should be noted that **in all cases** a plan approval exemption in 310 CMR 7.02, cannot exempt the owner or operator of a facility from Non-attainment New Source Review applicability if thresholds for Non-attainment New Source Review have been triggered. This means that while

each fuel utilization emission unit is evaluated individually against the plan approval threshold of 310 CMR 7.02, the aggregate of planned fuel utilization facility changes must be determined and compared to the thresholds of applicability in 310 CMR 7.00, Appendix A. If, for example, a facility with current potential emissions of 60 tons per year of NOx from combustion sources plans to make modifications that would increase NOx emissions, in the aggregate, by 25 tons per year or more, then a plan approval would be required (under 310 CMR 7.00, Appendix A) even if individual fuel utilization emission units fell below the threshold that would require a plan approval under 310 CMR 7.02.

Finally, the exemption section contains explicit guidance in how the calculation of potential to emit should be performed. In calculating potential to emit for exemptions, the proposed regulations allow applicants to deduct emission decreases expected from any air pollution control equipment associated with the emission unit seeking exemption.

**(3) General Requirements for Plan Approval**

The proposed amendments compile all procedures and requirements that apply to plan approvals (Limited as well as Comprehensive) into one section, 310 CMR 7.02. This proposed revised section includes a reference to the Massachusetts Environmental Policy Act (MEPA) requirements as well as the conditions for Department review and approval of a plan application. In the current regulation, these general requirements that apply to all plan approvals are found in various locations throughout 310 CMR 7.02. By combining these requirements into a single section, the regulated community can more easily determine what will be needed to obtain a plan approval.

New procedures added to this section allowing limited construction activities to commence prior to obtaining plan approval (at the applicant's risk), and procedures for reactivating an emission unit that has been unused for a number of years. New paragraphs have also been added to clarify the duration of a plan approval and to more clearly state the prohibitions on removing air pollution control equipment and concealing emissions.

**(4) Limited Plan Approval**

In the current version of 310 CMR 7.02, Limited Plan Approval (LPA) applicability and the plan approval requirements are located in two separate sections. The proposed regulations combine those two sections into a single section.

In addition to reorganizing the LPA requirements into a single section, the proposed regulations would allow the LPA to be used as a vehicle for modifying an existing plan approval, provided that the modification would increase potential emissions by less than five tons per year and further provided that the modification does not contravene existing plan approval conditions related to control equipment or limitations on the VOC content of coatings.

**5) Comprehensive Plans Approval**

Similar to the changes for a LPA, the proposed regulations combine the applicability and requirements for Comprehensive Plan Approval (CPA) into one section of 310 CMR 7.02.

In addition, the proposed regulations require a CPA in the event that the addition of emission units individually exempt from plan approval increase emissions (in aggregate) by five tons or more in a single calendar year. Aggregated emissions are discussed further in (6).

**(6) Aggregated Emissions**

With the exemptions from plan approval, there comes a responsibility on the part of a facility owner or operator to track potential emission increases that result from installation of equipment that is exempt from plan approval. The existing regulations require a plan approval when such aggregated emissions exceed one ton per year. In the proposed amendments, plan approval (CPA) is required when aggregated potential emissions reach or exceed five tons or more. This amendment eliminates the requirement for an LPA should aggregated emissions exceed one ton per year but be less than 5 tons per year.

An aggregate emission calculation is also necessary to ensure that significance levels have not been reached that would otherwise require Non-attainment New Source Review outlined in 310 CMR 7.00, Appendix A. This was previously discussed in (2).

**(7) Mitigation of Air Pollution**

This section has been redrafted for clarity and some language has been added to define the procedure the Department shall use to obtain information from a facility as part of mitigating a condition of air pollution.

**(8) Emission Limitations**

It is proposed to revise this section to more clearly describe the emission limitations that apply when filing an application for plan approval. First, the section has been re-written to improve clarity. The section still contains language that states that the most stringent applicable limit, or Best Available Control Technology (BACT), must be applied (NOTE: Modifications subject to Non-attainment New Source Review are required to implement Lowest Achievable Emission Rates or LAER). The section also includes the particulate emission limitations applicable to existing sources (sources built and operating prior to 1972 and not modified since that time).

Second, obsolete language and out-of date requirements have been deleted. This includes the process weight table that currently exists in 7.02. The BACT analysis process (and not the process weight table) has, for a number of years, established the emission limitations contained in plan approvals. The emission limitations specified for contact sulfuric acid plants and for industrial process emissions of nitrogen dioxide are proposed to be deleted as there are no existing facilities subject to these standards.

Finally, the current section 310 CMR 7.02 (14), relating to emission standards for Emergency or Stand-by Engines, has been relocated to paragraph (8)(i) of this section. There are no wording changes proposed for this paragraph.

**(9) Restricted Emission Status (RES)**

It is proposed to move the existing 310 CMR 7.02(12) to 310 CMR 7.02(9) with no changes.

**(10) Modification of an RES**

A new section is proposed to allow parties holding an existing RES to modify the emission limits, terms or conditions of the RES. There are three types of modifications discussed. The first addresses proposals to increase RES emission limits without construction, reconstruction, or alteration of the facility. In this case, the procedures of 310 CMR 7.02(9) would apply.

The second type of RES modification proposed is a procedure available when an applicant is seeking to increase the allowable emissions or the emission cap and construct, reconstruct, or alter the facility. This situation would require a plan approval under 310 CMR 7.02(5). The CPA would serve as the vehicle for modifying the RES and one application would serve both the purpose of plan approval and modification of the RES. An option to this second RES modification type would allow the approved emissions of an LPA or CPA application for the change to become additive to the RES. It would be the facility's responsibility to ensure compliance with regulatory thresholds.

The third type of RES modification is a modification in the terms and conditions without a change in emissions. This type of modification can include adding equipment, as long as the short and long term emission rates in the RES are not going to change. To modify an existing RES in this circumstance, the applicant need only file an abbreviated RES application that proposes new terms, conditions, or amendments. This type of RES modification has an expedited timeline that allows construction to commence 30 days after filing the RES application unless the applicant is contacted by the Department for additional information or a more complete application. Operation of the added equipment cannot commence until the public review process of 310 CMR 7.02(9)(g) is complete.

**(11) 50% or 25% Facility Cap Notification**

It is proposed to move the existing 310 CMR 7.02(15) to 310 CMR 7.02 (11) with no changes.

*C. 310 CMR 7.03 Plan Approval Exemption: Construction Requirements*

This regulation provides an alternative to source specific plan approval for certain types of emission units. This process is also known as "permit by rule."

In the amendments, four new "permit by rule" categories are proposed. These four are: Welding, Temporary Boilers, Corona Surface Treatment Devices, Conveyors and Dry Material Storage. The four proposed sections are further described as follows:

**Welding**

It is proposed to allow parties to construct, reconstruct or alter welding equipment without a plan approval if the facility (as a whole) uses 10 tons of welding rod per year or less. For this category, each welding station must be equipped with ventilation that directs fumes to a particulate control device with a control efficiency of at least 90%.

**Temporary Boilers**

It is proposed to allow Temporary Boilers to be installed (for cause such as the original boiler has been ruled unsafe, etc.) without a plan approval, provided that the heat input capacity of the temporary boiler is equal to or less than the boiler it is replacing. In addition, the temporary boiler must use the same or lower sulfur content fuel than the boiler it is replacing or the temporary boiler must use natural gas. Temporary boilers cannot be installed for a period greater than 120 days. An extension to this 120-day limit is possible if the party provides a written request for an extension to the Department.

**Corona Surface Treatment Devices**

It is proposed to allow the installation of corona surface treatment devices without a plan approval provided that they are equipped with a catalytic ozone decomposer that reduces ozone emissions by 99.9% or to 0.1 ppm. Corona surface treatment devices emit ozone. Most come equipped with an ozone-decomposing device designed to meet the OSHA standard of 0.1 ppm. Other units that are vented out of doors can achieve a 99.9% reduction in ozone emissions with the ozone-decomposing device. This level of control is presumed to be BACT.

**Conveyors and Dry Material Storage**

It is proposed to allow equipment that conveys or stores dry powder materials to be installed or modified without a plan approval, provided that the conveyor and/or storage system is enclosed and equipped with a fabric filter or other particulate control device designed and operated at 99.5% control efficiency or greater. These operations are also prohibited from generating any visible emissions. Storage silos that are already regulated under a 7.03 category (See 310 CMR 7.03 (9)) are not subject to this new section. This new section is also not intended for use by mining operations, sand and gravel operations, petroleum and coal operations, and stone, sand or clay products preparation.

In addition to the four new categories, the proposed regulatory amendments expand the applicability of 310 CMR 7.03. The proposed language would allow most of the listed emission unit types that have been installed since 1970 to comply with 310 CMR 7.03 in lieu of obtaining 310 CMR 7.02 plan approval. Previously, the "permit by rule" option was only available to emission units installed after June 1, 1990, or other date when the specific "permit by rule" standard was adopted. This proposed amendment would essentially "grandfather" eight categories of small emission sources that may have been installed without permits in the past, provided that they comply with the specific standards. Parties who already hold plan approvals for these types of operations are still obligated to comply with the applicable plan approval conditions and limitations.

Some clarification has been added to 310 CMR 7.03 to remind all parties that equipment installed under 310 CMR 7.03 provisions still need to be aggregated as part of a determination of applicability to New Source Review. This is to ensure that new and modified sources (even if exempt from plan approval under 310 CMR 7.03) do not trigger federal New Source Non-attainment Review or Prevention of Significant Deterioration (PSD) permit requirements. If installation of an emission unit allowed without plan approval under 310 CMR 7.03 results in potential emissions that exceed a federal permit threshold, then the construction, installation or modification of that emission unit must first be approved under the that federal permit program (Non-attainment Review at 310 CMR 7.00, Appendix A or Prevention of Significant Deterioration at 40 CFR 52.1145).

Finally, for Paint Spray Booths at 310 CMR 7.03 (16), a provision is proposed for the Department to determine the equivalency of alternative particulate filtering systems.

*D. 310 CMR 7.04 Fossil Fuel Utilization Facilities*

The proposed regulations add language to this section to allow certain facilities to discontinue use of smoke sensing devices unless otherwise required by federal New Source Performance Standards. This provision would affect facilities with an energy input capacity between 10 million and 40 million Btu per hour which were required to install smoke sensing devices by rescinded regulation or prior plan approval. In previous revisions to 310 CMR 7.04, the smoke sensing device requirement was eliminated for emission units installed since 1990. This amendment would apply the same rule to older emission units, some of which are maintaining obsolete and out-dated smoke sensing equipment. Also, many of the emission units subject to this regulation have already replaced smoke sensing equipment with the equipment required by the federal new source performance standards, making this requirement redundant and confusing.

*E. 310 CMR 7.05 Fuels: All Districts*

This regulation establishes the maximum sulfur content of fuel oil to be distributed and used in Massachusetts. The current regulation is structured with each Air Quality Control Region or District in the state having its own stand-alone set of requirements. The proposed regulation replaces the existing regulation but does not change any standards or limitations on the sulfur content of fuel. The proposed language reduces the repetitive and sometimes redundant requirements of the existing rule with a table that summarizes the fuel oil sulfur limitations by district. Requirements applicable to fuel oil distributors and vendors remain the same as the

current rule. The revision also clarifies that there are no sulfur-in-fuel or ash requirements for natural gas.

*F. 310 CMR 7.06 Visible Emissions*

It is proposed to make an optional visible emission limitation within 310 CMR 7.06(1) – Stationary Sources Other than Incinerators available to sources in the Operating Permit Program (310 CMR 7.00 – Appendix C). The proposed exception would allow these sources to comply with an *average* visible emission limitation of 15 % opacity. The current regulations contain a "no greater than" cap of 20% opacity except for two minutes in an hour when up to 40% opacity is allowed. For black smoke, the current regulation provides that black smoke emissions be no greater than No. 1 Ringlemann (approximately equal to 20 % opacity), except for six minutes in an hour when up to No. 2 Ringlemann (~40 % opacity) is allowed.

Compliance with this exception, will be determined in accordance with EPA Method 9. Using this method, the visible plume is observed every 15 seconds for six minutes. Each opacity observation is recorded; the sum of the numeric opacity observations is then divided by 24 with this result compared to the regulatory requirement of 15%.

To operate under this exception a source must notify the Department and submit an operating plan for the source's boilers. The operating plan must contain procedures for operating and maintaining the boiler(s) to minimize visible emissions during startup, shut down, sootblowing, burner change and malfunctions. Demonstrated adherence to the operating plan would be deemed as operating in compliance. The Department maintains its right to require that an operating plan be amended if the plan is inadequate or the source is causing a condition of air pollution. The Department may also disallow a source from operating under the exception.

The proposed language would also amend the title of 310 CMR 7.06(6) to "Non-Stationary Diesel Engines" to remove confusion and conflict within the current regulations.

*G. 310 CMR 7.12 Source Registration*

This regulation is currently called "Inspection Certificate Record Keeping and Reporting." Most Department and Industry representatives know the program as "Source Registration." The Source Registration program requires stationary sources to collect information, keep records, and report emissions on a periodic basis. For larger sources (as defined in the regulation), reporting is done annually. For smaller sources, Source Registration needs to be submitted once every three years.

Source Registration is an important part of the Department's air pollution control program. Through Source Registration, the Department collects information on actual emissions to the air. This information is used to prepare emission inventories for air pollution control planning, to target inspection activities, and to assess effectiveness of air pollution control regulations. Source Registration is also the vehicle used to implement the federal Emission Statement requirements of the Clean Air Act Amendments of 1990.

In the proposed amendments, the Source Registration regulation has been redrafted to more clearly define applicability and reporting deadlines. In addition, a new section has been added to establish a procedure for filing Source Registration for those parties who have not previously had to file the report. The proposed amendments include language that exempts some types of emission units from having to be included in Source Registration: specifically, those identified in 310 CMR 7.00, Appendix C, Section C(5)(i). (These are insignificant activities that are exempt from the operating permit program.) Finally, the proposed amendments include a more definitive list of information that may be required in the Source Registration report, including the list of pollutants that need to be reported.

The only change proposed in the applicability of Source Registration is the addition of Hazardous Air Pollutants (HAPs) to the list of air pollutants that need to be reported in Source Registration. The current Source Registration program requires reporting from sources of HAPs that are regulated by a National Emission Standard for Hazardous Air Pollutants that is enforced by the Department through program delegation from EPA. The majority of HAP emissions, as defined by Section 112 of the Clean Air Act Amendments of 1990, have not been explicitly part of Source Registration to date, although many of these HAPs have been reported as part of reporting volatile organic compounds and particulate metal emissions. The addition of HAPs should not increase the number of facilities having to file Source Registration on a periodic basis. The applicable threshold for HAP emission reporting is equivalent to the major source threshold for the Operating Permit Program (310 CMR 7.00, Appendix C). Any facility that is subject to Operating Permit requirements should already be filing Source Registration on a periodic basis.

Finally, the addition of HAPs reporting will bring the air emissions reporting program closer to the model for "one-stop" reporting. Currently, hazardous material use is reported to EPA through the Form R, to local officials through the Tier II report and to the Department through the TUR Form S report. Estimates of air emissions or water discharges are already part of these reports (particularly the Form R and Form S). Adding HAP emissions to the air program reporting closes the gap between the air emissions reporting and the waste programs reporting and will improve consistency between the various reports. Building consistency between the reporting programs furthers "one-stop" reporting.

### *H. 310 CMR 7.18 Volatile and Halogenated Organic Compounds*

This section of the regulations implements emission controls for existing sources of volatile organic compounds and halogenated organic compounds. The level of control is consistent with what the Department or EPA has determined to be "Reasonably Available Control Technology" or RACT. RACT generally requires emission reductions from existing sources. The level of control that is determined to be RACT is one that is technologically feasible as an add-on control or via reformulation and which is economically viable. In general, RACT standards are less stringent than BACT standards that are applied to new source construction.

The proposed amendments add a statement to 310 CMR 7.18 to more clearly state that emission units that have received plan approval since 1990, and were constructed or modified with a level of control found to be BACT, are not subject to RACT standards. This will not change how the RACT standards are applied. This amendment only adds language to support the current practice.

### *I. 310 CMR 7.19 Reasonably Available Control Technology (RACT) for Sources of Oxides of Nitrogen (NOx)*

As discussed previously under the proposed amendment to 310 CMR 7.18, RACT standards are applied to existing facilities and are generally less stringent than BACT which applies to new and modified sources. Similar to 310 CMR 7.18, the proposed 310 CMR 7.19 more clearly states that emission units that have received plan approval since 1990 are not subject to RACT standards if constructed or modified consistent with a level of control determined to be BACT.

## IV. AIR QUALITY IMPACTS

The purpose of this action is to:

| | |
|---|---|
| Streamline, clarify and simplify plan approval activity | (310 CMR 7.02) |
| Add exemptions from plan approval where appropriate | (310 CMR 7.02 and 7.03) |
| Eliminate obsolete requirements | (310 CMR 7.04, 7.05) |
| Streamline and simplify emission standards | (310 CMR 7.05, 7.06) |
| Clarify annual reporting requirements | (310 CMR 7.12) |
| Clarify compliance determination procedures | (310 CMR 7.18, 7.19) |

These goals are largely accomplished without any adverse impacts on air quality. In this section, the major actions proposed in these regulations will be discussed and the air quality impacts assessed. Major actions with potential or perceived air quality impacts include:

1. Addition of exemptions from plan approval.
2. Increasing the aggregate emissions plan approval threshold to five tons per year.
3. Allowing certain plan approval conditions to be contravened without plan approval or with limited plan approval.
4. Changing the plan approval threshold for non-criteria pollutants to one ton.
5. Deletion of the Process Weight Table and Gaseous Industrial Emission requirements for existing facilities.
6. Modification of a RES by notification.
7. Addition of new 310 CMR 7.03 or "permit-by rule" categories.
8. Expanding applicability of 310 CMR 7.03 to emission units installed prior to 1990.
9. Addition of HAPs to the reporting requirements of 310 CMR 7.12.
10. Exemption of equipment approved as BACT from RACT requirements.
11. Elimination of opacity monitors installed prior to 1990.

*A. Adding New Exemptions from Plan Approval*

There are two types of activities proposed for exemption from plan approval:

1. Insignificant emission sources (e.g., plastic molding, pressure relief devices, battery charging).
2. Modifications to existing emission sources that will result in reduced emissions (e.g., voluntary addition of control equipment, fuel switching).

The exemption from plan approval for insignificant activities, proposed in this action, is a clarification, rather than a relaxation, of the air pollution control plan approval regulation. Most of

the activities proposed for exemption, would be exempt under current regulations by virtue of being less than one ton per year potential to emit. The specific list of exemptions allows facilities to more simply identify the exemption category rather than prepare a potential to emit calculation as part of determining applicability.

For insignificant activities and small emission units, it is also important to acknowledge what a plan approval is intended to do. Plan approval allows the Department to review industry plans for construction and expansion to determine if the appropriate level of air pollution control is being implemented as part of the construction or modification. Determining the level of air pollution control is called an analysis of "Best Available Control Technology" or a BACT analysis process. Air quality impacts from a change in regulations that establish procedures such as plan approval are based on whether the new procedure imposes an equal level of stringency as the existing provisions.

The BACT analysis process ensures that the appropriate level of air pollution control is employed when construction or modification will result in an increase in emissions of one ton or more per year. BACT reflects the state-of-the-art level of emission control at a particular point in time, and takes into account the technological advances of control technology, production processes, and methods of production as well as the cost of control technology. BACT is an emission limitation that is technologically feasible and economically achievable, and is determined on a case-by-case basis. A BACT level of control may be achieved through pollution prevention rather than through add-on control technology.

BACT may be "no control" for small sources of emissions. This result can occur when the technical assessment of the BACT analysis indicates that pollution prevention is not a feasible option, and when the economic portion of the analysis indicates that add-on controls are not economically feasible (the expected cost per ton of pollutant controlled exceeds what is determined to be reasonable and practical). Small sources of emissions (those under 5 tons per year uncontrolled) generally can demonstrate that add-on controls will exceed what is considered reasonable and practical in dollars spent per ton of emissions controlled.

The BACT analysis for these sources, therefore, is essentially a plan review exercise that results in a plan approval that restricts or caps emissions of the proposed new emission unit, but does not impose a requirement to reduce emissions beyond what is proposed by the applicant.

The same can be said for requiring plan approval for facilities that switch to cleaner fuels such as natural gas. This conversion to natural gas typically results in a decrease in emissions from small

combustion sources. Requiring a plan approval and BACT analysis in these cases does not add any measurable benefit to air quality over what would be gained by allowing such fuel switching to occur more quickly and easily. Thus, eliminating application preparation time and Department processing time for facility's switching to cleaner fuels makes sense.

Applying BACT where parties voluntarily add control equipment such as thermal oxidizers and baghouse, or repair baghouses when they are in need of repair or replacement, adds procedural complexity and expense to activities that benefit air quality. The air quality benefits of allowing such installations to proceed in a timely manner far exceed the air quality benefits that would be gained by requiring these units to first go through the formal plan review process. In most cases, the plan approval confirms what the applicant proposes to do. The Department retains its ability to require a full plan approval application in order to mitigate a potential condition of air pollution.

Therefore, the proposed exemptions from plan approval should not increase emissions to the air. In fact, the proposed exemptions should result in decreased emissions through voluntary additions of control equipment or fuel switching. The proposed regulations actually create incentives for such decreased emissions.

*B. Increasing the Aggregate Emissions Plan Approval Threshold to Five Tons per Year*

As previously discussed, plan approval allows the Department to review industry plans for construction and expansion to determine that the appropriate level of air pollution control (BACT) is being implemented as part of the construction or modification. Air quality impacts resulting from a change in regulations that establish procedures such as plan approvals are based on whether the new procedure imposes an equal level of stringency as the existing provisions.

BACT may be "no control" for small emission sources that are inherently clean. This is because the economic portion of the analysis can rule-out add-on controls as not economically feasible if the expected cost per ton of pollutant removed, exceeds what is determined to be reasonable and practical. Small sources of emissions (those under 5 tons per year uncontrolled) generally can demonstrate that additional controls will exceed what is considered reasonable and practical in dollars spent per ton of emissions controlled.

Again, the BACT analysis for these sources is essentially a plan review exercise that results in a plan approval that restricts or caps emissions of the proposed new emission unit but does not impose requirements to reduce emissions. The increase in the aggregate emissions plan approval

threshold to five tons per year would continue to require larger aggregate emission changes to undergo BACT analysis. Since only smaller aggregate emission changes are affected by this amendment, there is no adverse air quality impact expected from this proposed amendment.

*C. Allowing Certain Plan Approval conditions to be contravened without Plan Approval or with Limited Plan Approval.*

Current plan approvals itemize the equipment, the operating schedules, and the processes in a facility. Most of this information is provided in a narrative form and provides background information to the limits and conditions established by plan approval.

In some cases, this narrative can be read as part of the plan approval. For example, if the narrative states that Company X paints plastic parts using an XYZ paint spray gun, and the company needs subsequently to replace the gun with a newer make or model, the replacement could be construed as contravening the plan approval. Similarly, if the plan approval states that Company Y operates from 8 a.m. until 5 p.m. five days a week and the company decides to change its hours to 7 a.m. to 4 p.m., such a change could be interpreted as contravening the plan approval. Presently, a Comprehensive Plan Approval is required of anyone who wishes to modify a plan approval for changes similar to these examples.

The proposed amendments would allow some changes to be made in stationary source operations without plan approval, or with a limited plan approval. The proposed regulations treats these types of facility changes similarly to new or modified emission units creating a more level playing field. Under the proposed regulations, if the change would result in an increase in emissions of less than one ton per year, the change would be exempt from plan approval. If the change were to increase potential emissions by one ton or more but less than five tons per year, it would require an LPA. Some changes at a facility would continue to require a CPA. Examples of such changes include changing the approved VOC or HOC content of coatings or inks used at the facility, and changes in an air pollution control device used by the facility.

It is important to note that only certain types of changes to existing plan approvals are allowed under this proposed exemption or LPA option. The permissible changes include changes in operating hours, changes in production rates and changes in actual or potential emissions (of less than one ton for exemption and less than five tons for an LPA). Changes in emissions projected between one and five tons will still, through the LPA, need to demonstrate that BACT is met. Therefore, this action is not expected to have any adverse impact on air quality.

*D. Changing the Plan Approval Threshold from One Ton of the Sum of Non-criteria Pollutants to One Ton of any Single Non-criteria Pollutant.*

The purpose of this revision is to clarify and simplify the pre-construction permitting requirements for non-criteria air pollutants. By changing the pre-construction permit threshold to one ton of any single non-criteria pollutant, the Department is refocusing its plan approval process on those non-criteria contaminants that will be emitted in amounts significant enough to need a BACT level of control.

Again, the purpose of the plan approval program is to allow the Department to review industry plans for construction and expansion and to determine that the appropriate level of air pollution control is being implemented as part of the construction or modification. Determining the appropriate level of air pollution control is called an analysis of BACT.

As previously discussed, BACT can be "no control" for small sources of emissions. The BACT analysis for these sources results in a plan approval that can restrict or cap emissions but often does not impose requirements to reduce emissions beyond what the applicant has requested.

Revising the plan approval threshold for non-criteria pollutants to one ton per year for any individual non-criteria pollutant is not expected to present any adverse air quality impacts and presents no less stringent an emission control standard than is currently applied through 310 CMR 7.02, in practice.

*E. Deletion of Process Weight Table and Gaseous Industrial Emissions Requirements*

Deletion of these requirements will have no adverse air quality impacts. The process weight table has not been used to set emission limitations since the early 1970's, is obsolete, and does not provide the degree of air pollution control that occurs with the imposition of BACT. Similarly, new sources of gaseous emissions are required to install BACT; there are no existing sources that are regulated by the current, obsolete regulation.

*F. Modification of a Restricted Emission Status Approval (RES) by Notification*

It was an oversight that the current RES regulations lack a procedure for modification. These amendments propose a new procedure for modifying an existing, approved RES. There are two types of modification identified: those that would increase emissions and those that would not.

Similar to plan approvals for new and modified sources, the RES approvals are very detailed documents that explicitly list the equipment in the facility, the process, and the operating hours. The RES also places a short-term and long-term cap on emissions and identifies the record-keeping and reporting requirements necessary to ensure that the emission cap is being met.

A RES may need to be modified for a number of reasons. A RES could be modified without changing the short-term or long-term cap on emissions by modifying the list of equipment in the facility, or the process description. Some changes could alter the unit of measure used in a facility's records (e.g., pounds of raw material used per day as opposed to gallons of raw material used per day). As companies are gaining greater experience in the record keeping needed to maintain a cap on emissions, they are finding more efficient and equally effective ways of tracking their emissions.

For modifications that would alter such things as the equipment list, process, operating hours, or records, without a change in the short-term or long-term cap on emissions, the modification can be accomplished by notifying the Department. The new procedure also allows equipment to be added to the facility without plan approval, provided that the short-term and long-term emission limitations in the RES are maintained and that the emission rate/limitation of the new equipment represents BACT. The proposed regulation reserves the Department's right to respond to the notification (within a set timeframe), if it feels that more information is needed to demonstrate that the proposed change will not change the limit or enforceability of the cap. By limiting this notification process to only those RES modifications that will not affect the short-term or long-term cap on emissions, no adverse emission increase is expected from this amendment.

RES modifications that would increase the short-term or long-term cap on emissions would need to go through a more formal plan approval process. For modifications in the cap that are necessary because new equipment and emissions are being added, a 310 CMR 7.02 plan approval (CPA) and BACT assessment of the new equipment is required. The RES emission limitations will automatically be revised by the Department to include the new equipment and emissions upon approval of the CPA. This process allows a single plan application to serve two purposes: the Plan Approval and the RES modification. As BACT is required of any plan approval, there will be no adverse air quality impacts from this proposed process.

*G. Adding New Categories to 310 CMR 7.03*

The new 7.03 categories define BACT by regulation rather than on a case-by-case basis. Based on its experience, the Department believes that if these emission units were permitted on a case-by-case basis, the determination(s) of BACT would be the same as that defined in the regulation. See the previous discussion of BACT relative to small sources (e.g. emission units with potential emissions less than five tons per year).

Since the level of control established in the new 7.03 categories is no less stringent than if BACT were determined case-by-case basis, no adverse impact on air quality is expected.

*H. Expanding the Scope of 310 CMR 7.03 Applicability to Emission Units Installed Before 1990*

In proposing to allow emission units installed prior to 1990 to meet the 7.03 “permit by rule” standard, in lieu of obtaining individual permits, the Department may achieve some air quality benefit in a more cost-effective manner. Most of the emission units affected by this amendment are small and numerous (degreasers, paint spray booths, printing presses). Despite the Department’s efforts to locate these facilities, and enforce plan approval requirements, the number of sources is so large that they can be difficult to effectively manage in a plan approval enforcement program. By adding this “grandfather” provision, the Department is providing a choice for companies who have un-permitted emission units of the types listed in 310 CMR 7.03. Through this amendment, the affected facilities are offered a choice to either retrofit and upgrade their existing emission units to meet what the Department considers to be BACT for these units, or apply for a plan approval. Those who do not avail themselves of either option would be the target of enforcement. This would reduce the universe of sources for Department enforcement and make the enforcement that is undertaken, more effective in focusing on “scoff-laws”.

The air quality impacts of this amendment are expected to have positive benefits. Many of the sources affected would be considered "area sources" in the emission inventory. To use degreasers as an example, the Department has estimated[1] (based on EPA methods) that statewide degreasing emissions were 14,588 tons in 1990. Of those emissions, approximately 2758 tons could be attributed to stationary sources that are regulated and have plan approvals. The remaining emissions come from degreasing units too small for plan approval (exempt from permitting) or units that are operating without plan approval. By allowing these emission units without plan approval to come into compliance with the requirements of 7.03, the Department could achieve some additional emission reductions from these units. If even 5% of the emission units without plan approval that are not currently in compliance with RACT standards, chose to comply with 7.03, a 150 ton per year reduction in VOC emissions could be realized.

*I. Optional Visible Emission Limitation for Operating Permit Sources –310 CMR 7.06(1)(c)*

Operating permit sources are required to self certify compliance semi-annually, are subject to federal rules regarding compliance evidence, and have specific terms and conditions in their operating permits for monitoring, testing, recordkeeping, and reporting. They are highly regulated when compared with sources not required to have an operating permit. Also, the boilers in these sources have constant operator attendance, unlike the majority of boilers in the Commonwealth. There is no air pollution impact from the proposed rule as compared to the existing rule. As an example, in any one-hour period, the existing rule theoretically allows a constant visible emission of up to 19 % opacity. Even though the proposed rule would allow occasional emission "spikes" up to 100% opacity, the average visible emission allowed would be no more than 15% opacity in any six minute period.

The regulation requires these sources to develop a plan for operating and maintaining boiler operations. Although, specific operating occurrences of excess visible emissions would not be viewed as a violation if a source was operating in accordance with its plan, the regulation allows the Department to require changes to the source's plan or disallow a source from operating under the proposed regulation.

[1] 1990 Base Year Emission Inventory

*J. Addition of HAPs to the Reporting Requirements of 310 CMR 7.12*

Since a reporting requirement is neutral with regard to emission increases or decreases, addition of HAPs to the Source Registration reporting requirement will not have an impact on air quality.

*K. Exemption of Equipment Approved as BACT from RACT Requirements of 310 CMR 7.18 and 310 CMR 7.19*

As previously discussed in this document, BACT is the highest level of economically feasible control for new or modified sources. RACT is the most reasonable retrofit control, for existing sources. By definition, BACT is a more stringent level of control than RACT. Therefore, exempting emission units approved as BACT from the RACT requirements will not have any adverse affect on air quality.

*L. Elimination of Opacity Monitors Installed prior to 1990.*

In the 1994 amendments to 310 CMR 7.04, the Department exempted new fuel burning facilities with a heat input greater than 10 MMBtu per hour and less than 40 MMBtu per hour from having to install opacity monitors unless otherwise required to do so by Federal New Source Performance Standards. The proposed amendment would extend this exemption to cover sources permitted prior to 1990.

Some facilities with plan approval issued prior to 1990 have, as a condition of plan approval, a requirement to install, operate and maintain opacity monitors. In some cases, new monitors have been installed since 1990 to more accurately measure particulate, NOx or $SO_2$ emissions. In this instance, older opacity monitors are therefore redundant with the newer equipment. Still other facilities are trying to maintain older monitors that are largely obsolete, and for which replacement parts are unavailable.

Finally, there is an equity issue where the Department has eliminated the opacity monitoring requirements for fuel utilization facilities below a certain size with plan approval since 1990, but not for those facilities who received plan approval prior to 1990. This amendment will eliminate this equity imbalance.

Therefore, because the opacity monitors in older units have largely been augmented by new measurement devices with the same or comparable purpose, elimination of the older opacity monitors will not constitute a relaxation in the standards applied at regulated facilities and will not result in an adverse air quality impact.

## V. SAVINGS CLAUSE

Any regulatory amendments that affect regulations and programs that are part of the Massachusetts State Implementation Plan (SIP) must demonstrate that they are no less stringent than the existing SIP and that any projected increases in emissions that result from the amendments are offset by equal or greater predicted emission decreases.

As there are no emission increases or adverse air quality impacts projected as a result of these proposed amendments, there are no compensatory emission decreases that need to be made. It is noteworthy, however that the proposed amendments may result in some ancillary emission decreases. This was discussed in the section on air quality impacts associated with expansion of 310 CMR 7.03 to emission units installed prior to 1990. Such emission decreases are difficult to project as they will most likely affect small stationary or area sources. For this reason, the Department does not plan to claim credit in the SIP for these emission reductions.

## VI. COST

Pursuant to M.G.L. C 30A, Section 5, state agencies are required to provide information on the fiscal effect of a regulation on both public and private sectors. This information or analysis should estimate the costs of the proposed regulation or regulatory amendments for the first and second year after adoption, as well as in the first five years after adoption. This analysis does not need to be a detailed cost/benefit analysis as is found in federal regulations, but should provide the agency's best estimate of "out-of-pocket" expenses that will be incurred as a result of the regulatory amendments.

The overall cost of the regulatory amendments proposed by this action can be divided into the cost to the state to implement these regulations as amended, and the cost to business and industry to comply with these regulations, as amended.

*A. Cost to the State*

These amendments present a wide range of cost savings and expenditures for the state. In the area of cost saving, more comprehensible plan approval requirements, and more explicit identification of exemptions, methods for determining applicability, and procedures for preparing a complete plan approval application, should result in less confusion when a plan approval is filed with the Department and less questions to the Department's Regional Office plan review staff. This can save staff time, which can be redirected to reviewing and issuing plan approvals.

On the expenditure side, the addition of HAPs to the data elements that need to be reported in source registration will require the Department to modify the Source Registration forms and develop some method of compiling and evaluating HAP emissions. The Department currently uses a program called the "Stationary Source Enforcement and Inspection System" (SSEIS) to record facility and emissions information submitted through Source Registration. The SSEIS system is set-up to receive emission information on an equipment-by-equipment basis. Many HAPs are used in multiple pieces of equipment and breaking HAP emissions down to fit the SSEIS format could be problematic for industry. One option would be a modification to SSEIS that would allow HAPs to be reported for the facility as a whole, similar to what is done in the waste programs with the RCRA Form R and the TUR Form S. To accomplish this will require either modification of SSEIS, or incorporation of HAP data in another system or format which will require some expenditure in terms of time and effort within the Department.

To manage the new information created by Source Registration, initial costs to the Department are expected to be less than $ 20,000 in the first two years after adoption and negligible thereafter. The Department may realize some cost savings arising from better-organized and more readable regulations and additional exemptions from permitting.

*B. Department Fees*

The proposed exemptions from plan approval may minimally reduce the permit fees collected by the Department. The proposed provision that will most significantly impact fees is the provision that allows some activities to contravene existing plan approvals without having to apply for a Comprehensive Plan Approval (and pay a $1100.00 fee). In these amendments, activities which would increase actual or potential emissions by less than a ton will be exempt from plan approval

and activities that would increase actual or potential emissions by one ton but less than five tons would be required to file an LPA with a corresponding decreased fee ($300).

*C. Cost to Industry*

The only new requirement imposed by these amendments is a requirement to report HAP emissions as part of the periodic Source Registration. This is not expected to be a significant additional cost to industry.

Current environmental reporting regulations (waste as well as air) require industries to identify their use and emissions of all hazardous materials. The current Source Registration program requires reporting of organic compound emissions, many of which are also HAPs, as well as particulate emissions, some of which are particulate metal HAPs. As previously stated, any facility with either an RES or an Operating Permit is already required to report HAP emissions along with other emission of criteria pollutants.

At most, this requirements will require companies which use coatings and inks with a mixture of HAPs to re-aggregate their VOC emission calculations into HAP-specific categories. An average-sized company with 30 coatings (each having 3 VOC/HAP component compounds) will need to spend approximately 6 hours re-compiling this data on a HAP-specific basis (assuming the coating formulation information is already available in simple spreadsheet format). The cost of this is extra activity is estimated at less than $500 per facility. Again, the reporting requirements for waste programs (RCRA Form R, and TUR Form S) already require calculation of this information and additional work to estimate air emission may not be necessary.

Therefore, to provide the new information created by Source Registration, initial costs to industry are expected to be less than $ 1,000 in the first two years after adoption and negligible thereafter. Industry may also realize some cost savings because proposed plan approval exemptions can decrease plan application preparation time and permit fees.

Aside from the specific amendments discussed here, the remaining amendments are expected to have no fiscal effect.

## VII. IMPACT ON SMALL BUSINESS

The proposed amendments may have a positive effect on small business to the extent that small business may be allowed to install or modify equipment without a plan approval if it meets one of the new exemptions. The revision of the regulations may also allow small business to more easily understand their obligations under the regulations, potentially saving them fees for consultants and lawyers.

There are no amendments proposed that would increase expenses incurred by small business particularly since most do not have the kind of operations that generate large HAP emissions that would need to be reported through Source Registration.

## VIII. AGRICULTURAL IMPACTS

Pursuant to the intent of Massachusetts General Laws, Chapter 30A, Section 18, state agencies should evaluate the impact of proposed programs on agricultural resources within the Commonwealth.

As there are no air quality impacts or emission increases associated with these amendments, the proposed amendments are not expected to have any impact on agricultural production in Massachusetts.

## IX. TOXICS USE REDUCTION

The proposed amendments will not have an impact on Toxics Use Reduction because most of the amendments are procedural. The aggregating emissions requirements could provide some small incentive to further Toxics Use Reduction in order to maintain actual and potential emissions under five tons per year. Unfortunately, the emission units that would be subject to this provision are small, so the overall impact would be negligible.

## X. IMPACTS ON CITIES AND TOWNS

Similar to small business impacts, there may be some positive impacts on cities and towns as a result of these amendments. Most facilities owned or operated by cities and towns contain small emission sources that are currently subject to plan approval requirements. The initial revisions to 310 CMR 7.02 that created the tiered approach to plan approval in the late 1980's relieved a great deal of the plan approval burden from cities and towns. These additional amendments may allow cities and towns more flexibility in making modifications without having the expense of plan approval. These impacts can only be quantified on a case-by-case basis over time. There are no

amendments proposed that would increase expenses incurred by cities and town, particularly since most do not have the kind of operations that generate HAP emissions in amounts that would need to be reported through Source Registration.

## XI. REQUEST FOR COMMENTS

Comments on these proposed regulations should be sent to:

Mr. Robert T. Donaldson, Associate Director
Business Compliance Division
Bureau of Waste Prevention
Ninth Floor
Department of Environmental Protection
One Winter Street
Boston, Massachusetts 02108

## XII. PUBLIC PARTICIPATION

In developing these amendments, the Department has consulted with industry groups through the participation of the Ad Hoc Industry Group previously described as well as advisory groups on air quality and ozone attainment. Their input helped the Department shape these amendments to meet the goals of the plan approval streamlining effort.

These proposed regulations will be subject to further public review and comment prior to promulgation. Public hearings to collect comments on the proposed amendments will be conducted under the provisions of Chapter 30A of the Massachusetts General Laws on :

*Day of week - date - time*
*Department of Environmental Protection*
*One Winter Street*
*Boston, Massachusetts*

*Day of Week - Date - Time*
*Department of Environmental Protection*
*436 Dwight Street*

*Springfield, Massachusetts*

Testimony may be presented orally or in writing at the public hearings. Written comments will be accepted until 5pm Eastern Standard Time on [ *day of week*], [*date*] at the Business Compliance Division, Department of Environmental Protection, One Winter Street, 9th Floor, Boston, MA 02108.

After public review and Department evaluation and response to comments, the final amendments will be submitted to the Secretary of Sate for promulgation. The amendments will also be submitted to the US Environmental Protection Agency for approval as a revision to the Massachusetts State Implementation Plan.

If there are any questions regarding the proposed amendments or this document, please contact Bob Donaldson at (617) 292-5619.